RCA AMATEUR RADIO CLUB

Legacy Amateur Radio Club

AFFILIATED CLUB

INDIANAPOLIS, INDIANA

FEBRUARY, 2016 MONTHLY NEWSLETTER

THE NEXT MEETING OF THE RCA AMATEUR RADIO CLUB WILL BE
TUESDAY, FEBRUARY 9th, 6:30 PM AT G.T. SOUTH'S,
5711 E. 71st STREET, INDIANAPOLIS, IN

RCA ARC NEWS

SUMMARY OF THE JANUARY MEETING – At the January meeting, Jim K9RU announced our insurance has been paid for the next year, one of our bigger expenses. AF9A reported the Fusion repeater is operating without any known problems. K9RU reported the 6M beacon he has been working on is ready for installation. Tentatively, next Friday has been set to start the install at our west side receive site. Upcoming on the air activities, Parks on the Air and Indiana Parks on the Air were discussed. No particular Club participation was set. K9RU discussed the planned Amateur Radio on the International Space Station (ARISS) contact with the Children's Museum coming up later in the year. Members present voted to share the cost of a window air conditioner for the repeater shack with the other occupant of the building and reimburse AF9A for the Adruno used for the Fusion repeater. Upcoming on the air contests were discussed.

NEXT TEST AMATEUR RADIO LICENSE TEST SESSION

Time: Saturday, February, 13th Exams start at noon. Walk in allowed.
Location: Salvation Army EDS Training Facility
4020 Georgetown Rd
Indianapolis IN 46254-2407
Contact: Jim Rinehart K9RU Phone: 317 495-1933 e-mail: k9ru@arrl.net

HAMFESTS, OPERATING EVENTS, VOLUNTEER OPPORTUNITIES

Feb 13	5th Annual Brownsburg Hamfest http://www.hcars.org/
Feb 20-21	ARRL DX – CW Contest http://www.arrl.org/arrl-dx
Feb 27	Dugger Hamfest http://www.kc9ak.org/hamfest.html
Mar 5-6	ARRL DX – SSB Contest http://www.arrl.org/arrl-dx
Mar 26	Columbus Hamfest http://www.carcnet.net/?p=12

SEVERE WEATHER CURTAILS VP8STI SOUTH SANDWICH OPERATION; TEAM HEADS TO SOUTH GEORGIA

It's been a tense time for the Intrepid-DX Group's VP8 DXpedition team on South Sandwich, which had been operating as VP8STI. A fierce South Atlantic storm bearing 70 MPH winds and dropping 2 to 3 feet of snow slammed the VP8STI encampment, threatening to shut down the operation.

"Since early this morning, we have been experiencing blizzard-like conditions with strong winds and heavy snowfall," DXpedition Co-Leader Paul Ewing, N6PSE, said on January 24. "Some of our antennas have become damaged by the high winds, and the snowfall is making access to

them very difficult. It is also increasingly difficult to refuel our generators." The group managed to recover, repair its antennas, and return to the air, however, and the VP8STI operators soldiered on despite the adverse conditions.

Not long afterward, though, a storm-related emergency forced the VP8STI team to abandon its equipment and belongings and return to their transport vessel, the R/V *Braveheart*. Chief Pilot Toni Gonzalez, EA5RM, said the *Braveheart*'s skipper, Nigel Jolly, declared an emergency on January 25 at 2120 UTC, ordering the VP8STI team to cease all operations and come back to the ship. According to Gonzalez, a large ice floe that broke away due to the storm threatened to block the entrance to the bay where the team had camped, raising the possibility that the ship might not have been able to retrieve the operators.

While the emergency effectively ended the VP8STI phase of the two-pronged DXpedition, the team was able to return to camp on January 26 to retrieve its gear and equipment. Gonzalez said on January 27 that the team expects to be on as VP8SGI from South Georgia by the afternoon of January 29 and will attempt to operate from there for 8 days.

VP8STI generated hectic pileups, logging more than 51,600 contacts, with more remaining to be uploaded once the team reaches South Georgia. -- *Thanks to* The Daily DX

CONGRESSMAN INTERCEDES WITH FCC CHAIRMAN ON AMATEUR RADIO INTERFERENCE CONCERNS

New York Congressman Peter King has asked FCC Chairman Tom Wheeler to put some Enforcement Bureau heat on those interfering with various radio communication services, including Amateur Radio, in the New York City Metropolitan Area. While visiting Capitol Hill recently to promote the Amateur Radio Parity Act, ARRL Hudson Division Director Mike Lisenco, N2YBB, and General Counsel Chris Imlay, W3KD, met with King, a Republican representing New York's 2nd District, to discuss the interference issue. King is among the original of the 118 cosponsors of the Amateur Radio Parity Act (H.R. 1301) in the US House.

"Rep King, a long-time supporter of Amateur Radio who is also very concerned about malicious interference with licensed services, offered to send a letter to FCC Chairman Tom Wheeler on our behalf," Lisenco said. "Like many areas of the country, the Hudson Division has been plagued with malicious interference on our VHF and UHF repeaters for years. There has been no relief from the FCC, despite repeated pleas for remedy made by ARRL. All requests for help have consistently fallen on deaf ears."

In his January 15 letter to Wheeler, King pointed out that while multiple perpetrators have been involved, the identity of the "ringleader" is well known to the Enforcement Bureau. He reiterated that the malicious interference had "been allowed to continue for too long," and he called for "timely and visible enforcement" to deter others.

"The Amateur Radio repeaters on Long Island that are rendered useless by this individual are used for emergency preparedness exercises and were used extensively in Hurricane Sandy disaster relief efforts," King told Wheeler. "This individual has been allowed to proceed without any apparent Commission enforcement for well over 2 years, despite repeated complaints from ARRL, NBC engineering staff, and at least two Long Island Amateur Radio clubs. NBC remote pickup units and public safety radio systems also have been troubled by malicious interference.

King said he realizes that FCC Enforcement Bureau resources are limited and that he appreciates the attention the Commission has paid to such issues as pirate radio investigations, but he asked for a tougher stance.

"[D]eliberate interference with public safety, broadcast program production, and Amateur Radio public service communications...must be swiftly and visibly addressed," King concluded. Read more. --ARRL Letter

ARRL 2016 FIELD DAY PACKET IS NOW AVAILABLE, NEW BONUS POINT CATEGORIES ANNOUNCED

It's not too early to be thinking about Field Day 2016 and planning your club's strategy for a bigger score and greater participation than last year. Field Day is June 25-26 — always the 4th full weekend in June — and the 2016 ARRL Field Day Packet now is available to download as a PDF file. This year's Field Day introduces two new ways to score bonus points — Social Media and Safety Officer.

Rule 7.3.16 Social Media offers 100 bonus points for promoting your Field Day activation to the general public via an active, recognized, and utilized social media platform, such as Facebook, Twitter, or Instagram. This bonus is available to bona fide Amateur Radio clubs and Field Day groups that welcome visitors to their operations. These bonus points are not available to *individual* participants, and club websites do not qualify as social media for this bonus. The bonus points are available to all Field Day entry classes meeting the criteria.

Rule 7.3.17 Safety Officer offers 100 bonus points by designating someone to serve as a Safety Officer for groups setting up Class A stations. This person must verify that all safety concerns on the Safety Check List — found in the ARRL Field Day Packet — have been adequately met. This is an *active* bonus. Simply designating someone as Safety Officer does not automatically earn the bonus points. In order to claim this bonus, participants must include a statement verifying the completion of the Safety Check List in the supporting documentation sent to ARRL Headquarters.

Last year, 2720 stations submitted ARRL Field Day entries. Nearly 1.3 million contacts were logged during FD 2015 — an increase of just over 1 percent. There were 35,369 individuals taking part in Field Day last year.

You can follow Field Day on Facebook and Twitter! ARRL has created a Field Day event on Facebook. It's also possible to join the conversation on Twitter by using the hash tag **#ARRLFD**. Share *your* plans, tips, and tricks to a successful Field Day!

For more information about Field Day 2016, contact ARRL Headquarters.

SATELLITE PACKAGE CARRYING AMATEUR RADIO PAYLOADS RELEASED INTO ORBIT FROM ISS

A package of two satellites carrying Amateur Radio payloads has been deployed into orbit from the International Space Station (ISS) as part of a collaborative Texas A&M and University of Texas at Austin research effort. Built by Texas A&M students, AggieSat4 (AGS4) will release UT's Bevo-2 CubeSat in about a month, once it is far enough away from the ISS. Both schools received support from NASA's Johnson Spaceflight Center (JSC) for the design, construction, testing, and launch phases. The goal of the overarching LONESTAR (Low Earth Orbiting Navigation Experiment for Spacecraft Testing Autonomous Rendezvous and Docking) program is for the two satellites to individually rendezvous with each other and perform docking and undocking maneuvers.

"The overall objective is to find ways for small spacecraft to join together autonomously in space," Helen Reed, KD7GPX, professor of aerospace engineering and director of the AggieSat Lab at Texas A&M told NASA. "We need simple systems that will allow rendezvous and docking with little to no help from a human, which will become especially important as we venture farther out into space. Applications could include in-space assembly or reconfiguration of larger structures or systems as well as servicing and repair."

The AggieSat team received its first beacon signal from the satellite at its Texas A&M Riverside Campus ground station. The AggieSat4 team is asking any Amateur Radio operators receiving the beacon signal to send any data to the AGS4 team. AggieSat4 will transmit 9.6 kbps FSK telemetry and 153.6 kbps FSK on 436.250 MHz. Once it's placed into its own orbit, Bevo-2 will transmit on 437.325 on CW and 38.4 kbps FSK.

Both satellites were launched to the space station during a December 6, 2015, resupply mission. Earlier last week, Astronauts Tim Peake, KG5BVI, and Scott Kelly made preparations to deploy

the sizeable LONESTAR phase 2 mission satellite package from the ISS, using the SSIKLOPS deployer. The satellite mission also will demonstrate communication cross links, data exchange, GPS-based navigation, and other tasks. AggieSat4 will capture images of the Bevo-2 release.

The satellites were independently developed by student teams at the two universities. Both teams were responsible for development plans for their satellite and had to meet established mission objectives.

The Bevo-2 Satellite was designed, built, and tested in the Texas Spacecraft Lab (TSL) at the University of Texas at Austin. “This whole experience is very exciting,” TSL Director Glenn Lightsey, KE5DDG, said last fall as undergraduate and graduate students were in the final stages of their project. “It’s great to have a research program where our students can build satellites that fly in space.” Reed and Lightsey are co-investigators for the LONESTAR 2 project. --ARRL

DAYTON AMATEUR RADIO ASSOCIATION SURPRISES ARRL CEO DAVID SUMNER, K1ZZ

As he nears retirement, ARRL CEO David Sumner has been honored by the Dayton Amateur Radio Association (DARA), which sponsors Dayton Hamvention®. Sumner had been invited to speak at DARA's January 8 meeting, purportedly to recount his many years with ARRL. While such out-of-town speaking engagements are not out of the ordinary for him, something he wasn't anticipating awaited him at this event.

"Dave provided a great insight into the mission of the ARRL, but our club had some surprises," said DARA President Don Dubon, N6JRL.

The Dayton Amateur Radio Association honored Sumner with a plaque noting his "Outstanding Career and Service to Amateur Radio." The club also made him a "Gold Card" lifetime member of DARA, an honor bestowed on very few, Dubon said. In addition, the ARRL Ohio Section presented him with a Special Recognition Award.

"I am very pleased that the relationship between DARA and the ARRL has blossomed into one of the outstanding partnerships in organized Amateur Radio," Sumner said.

A reception attended by some 160 DARA members followed the meeting. --ARRL Letter

OUTGOING ARRL CEO DAVID SUMNER, K1ZZ, HONORED WITH ARRL PRESIDENT'SAWARD

As both were on the threshold of departing their official positions with the League, then-ARRL President Kay Craigie, N3KN, presented ARRL CEO David Sumner, K1ZZ, with the ARRL President's Award. The presentation came during the ARRL Board of Directors' Annual Meeting January 15-16 in Windsor, Connecticut. She also recognized two Board members for their 50 years of League membership.

The legend on the ARRL President's Award plaque recognizes Sumner "for lifetime dedication to advancing the art, science, and enjoyment of Amateur Radio." Sumner announced last year that he would be stepping down at the end of May after 44 years on the ARRL Headquarters staff.

Licensed in 1962, Sumner has been engaged in Amateur Radio in the domestic and international arenas for most of the years since. Sumner is an active contester and DXer and renowned for the breadth and depth of his knowledge and expertise in Amateur Radio. --ARRL Letter

ARRL PRESIDENT BESTOWS PRESIDENT'S AWARD ON AMSAT'S TOM CLARK, K3IO

The ARRL has honored veteran AMSAT personality and Amateur Radio digital pioneer Tom Clark, K3IO (ex-W3IWI), with its President's Award. Then-ARRL President Kay Craigie, N3KN, presented the award plaque to Clark at a January 10 meeting of the Potomac Valley Radio Club

in Blacksburg, Virginia. The plaque, which bears a likeness of ARRL Co-Founder Hiram Percy Maxim, W1AW, recognizes Clark's 60 years of advancing Amateur Radio technology.

"In addition to his work with AMSAT, Tom was a leader in the development of the AX.25 packet radio network in the 1980s, when he was W3IWI. Anyone who was on packet in the 1980s knew that call sign," President Craigie said. "I recall attending a forum he gave on packet radio at a hamfest in Baltimore in the 1980s, when people on the East Coast were just getting interested in the mode and its possibilities." Clark was a TAPR director during the heyday of packet radio forwarding, and TAPR's significance was huge, she said.

Former AMSAT President and current AMSAT Director Bob McGwier, N4HY, was more direct. "There would be no AMSAT to inspire all of this work without Tom Clark," he said, noting that the organization had been in serious trouble after the Phase 3A satellite launch failure.

"Tom took over as president of AMSAT, and he saved the organization and inspired all of us to look to the future and aim for the stars," McGwier said. "All that has followed, including PACSAT and microsats, CubeSats, AO-13, all the way through AO-85, are a *direct* result of Tom Clark saving AMSAT and providing it leadership as president from 1980 to 1987 and continuous leadership on the Board of Directors of AMSAT from 1976 until today." Read more. --ARRL Letter

ARRL ASKS FCC FOR "MINIMAL BUT NECESSARY CHANGES" TO CORRECT REAPPORTIONING ERROR

The ARRL has petitioned the FCC to fix a "shortfall in available RTTY/data spectrum" the regulator created when it reapportioned 80 and 75 meters a decade ago. The League's January 8 *Petition for Rule Making* asks the FCC to shift the boundary between the 80 meter.

RTTY/data subband and the 75 meter phone/image subband from 3600 kHz to 3650 kHz. The ARRL's *Petition* points out that the proposed change has received strong support from the ARRL membership and was adopted as policy by the League's Board of Directors in July 2015. At that time the Board also agreed to seek RTTY and data privileges for Technician and Novice licensees within the portion of the 15 meter band where they now may operate CW and to do the same on 80 meters, contingent upon the 80/75 meter subband revision.

Specifically, the petition asks the FCC to make the following changes, with regard to 80/75 meters:

> Modify the 80 meter RTTY/data subband, so that it extends from 3500 kHz to 3650 kHz.
>
> Modify the 75 meter phone/image subband, so that it extends from 3650 kHz to 4000 kHz.
>
> Make 3600-3650 kHz available for General and Advanced Class licensees, as was the case prior to 2006.
>
> Make 3600-3650 kHz available to Novice and Technician licensees for telegraphy -- consistent with existing rules permitting Novices and Technicians to use telegraphy in the General and Advanced RTTY/data subbands on 80, 40, and 15 Meters.
>
> Modify the rules governing automatically controlled digital stations (ACDS), to shift the 80 meter ACDS segment from 3585-3600 kHz to 3600-3615 kHz, consistent with the IARU Region 1 and 2 band plans

The ARRL contended that the FCC *Report and Order* in Docket 04-140 released in 2006 made "a very substantial" and unjustifiable departure from what the so-called "Omnibus"*Notice of Proposed Rule Making* (*NPRM*) had proposed, with respect to 75 and 80 meters. The resulting *R&O* in that proceeding, among other actions, expanded voice privileges on additional frequencies in various bands, including 75 meters. The FCC shifted the phone/image subband from 3750-4000 kHz to 3600-4000 kHz, trimming the 80 meter RTTY/data subband from 3500-3750 kHz to 3500-3600 kHz and changing "the entire dynamic of this band substantially," the League said.

The ARRL said the most substantial adverse effect of the "unexpected and vast expansion" of the 75 meter phone/image was the elimination of access to 3620-3635 kHz by ACDS.

The Omnibus *R&O* rule changes limited 80 meters to 3500-3600 kHz, and no longer authorized RTTY and data emissions above 3600 kHz. The *R&O* also did not modify § 97.221 of the rules, "so its

provision for automatically controlled digital stations in the subband 3620-3635 kHz was rendered a nullity," the League said. "This was clearly an oversight by the Commission at the time."

The FCC denied a subsequent ARRL *Petition for Reconsideration* seeking a partial stay of the new rules and instead replaced the inadvertently deleted 3620-3635 kHz ACDS segment with 3585-3600 kHz.

"Far from fixing the problem created by the error in the Omnibus *R&O*, the moving of the inadvertently deleted digital subband downward in frequency below 3600 kHz made the situation in the 80 meter RTTY/data subband even worse than it was," the ARRL said. The result has been a shortfall in available RTTY/data spectrum at 80 meters. Read more. --ARRL

TECHNICAL

RTL-SDR is a popular, low-cost hardware that can receive wireless signals. The RTL-SDR dongle features the Realtek RTL2832U chip, which can be used to acquire and sample RF signals transmitted in the frequency range 25MHz to 1.75GHz. NooElec carries a variety of these USB dongle receivers as well as other interesting components and equipment.

On a related note for "techies," download a free ebook to learn how to receive and analyze wireless signals using RTL-SDR, MATLAB, and Simulink. Key features of this free ebook include: Illustrating how to receive wireless RF signals using RTL-SDR and analyze the signals in time and frequency domains; Showing how to use RTL-SDR in conjunction with SDR transmitters to develop a complete communication system; Providing an extensive set of DSP-enabled SDR examples to help you get started.

You can either download the ebook and all of the supporting files (including Simulink models, MATLAB scripts, and data files, 1.58GB), or you can simply explore the ebook itself without the supporting files (89MB). --AF9A

RF Cafe – We've pointed this out before but in case you've misplaced the link you might want to take a look again... A free .xls file with a bunch of calculators version 7.1.

Also, check out the RF Cafe home page for news and other maybe useful stuff!

SHORTS

Ramsey Kits Calls it Quits – After more than 40 years as a purveyor of inexpensive electronics kits for hobbyists, the Ramsey Hobby Kits group has announced that it's thrown in the towel, effective on January 1. The Ramsey RF Test Equipment Group is unaffected by this change. The Victor, New York, company sold a wide array of hobby kits over the years, starting with its LED Blinky kit in the 1970s and eventually including simple ham radio transmitters and receivers, aircraft band receivers, and other devices. Ramsey kits were frequently available at hamfests. The company said it will continue to provide technical and warranty support for hobby kits purchased through the end of 2015. Ramsey said its remaining hobby kit inventory has been relocated to Amazon.

North American "RST" Stations on the Air Activity Set for February and March — The "RST" stations will take to the airwaves in February and March from several locations in Alaska, Yukon Territory, Northwest Territories, and Nunavut, with members of the North Country DX Association (NCDXA) at the helm. All call signs will have "RST" suffixes: KL7RST, VY1RST, VE8RST, and VY0RST. The idea is to further promote Amateur Radio in that part of the world. The joint KL7, VY1, VE8, and VY0 is a first.

The event gets under way on February 15 at 0001 UTC, and it continues through March 27 at 2359 UTC. Exchange signal report and state/province. (The NCDXA RST stations will send town or city).

All modes on 160 through 6 meters will be used, and SWLs are welcome to participate. The

object is to work or log (SWL) as many NCDXA “RST” stations as you can from their different locations. Work/log each “RST” station only once per QTH/band and mode. Cross-band, cross-mode, or remote operating is permitted.

As wildcards, portable “RST” stations will also participate and are worth 3 points each/mode and band, but they must be one of the four “RST” stations. The portable stations must be outside their own prefix area to count — for example, KL7RST/VY1, but not KL7RST/KL7.

QSL manager is K7ICE. KL7YK is LotW administrator for Alaska, VY0CF for Nunavut, VY1MB for Yukon, and VE8MN for the Northwest Territories. Optional full color certificates are available via e-mail for working/hearing any of the “RST” stations. --ARRL

Central States VHF Society Issues Call for Conference Papers: The Central States VHF Society (CVHFS) is soliciting papers, presentations, and poster displays about any aspect of weak-signal VHF and above operating for the 50th annual CSVHFS Conference to be held in Rochester, Minnesota July 28-31. Authors do not need to attend the conference nor present their papers in order to have them published in the *Proceedings*. Posters will be displayed at the conference. The deadline for submissions is May 22. Further information is available at the CVHFS website. --ARRL Letter

VHF Groups Join Forces to Sponsor “Super Conference” — The Southeastern VHF Society (SVHFS), North East Weak Signal Group (NEWS) and Mount Airy VHF Radio Club (Pack Rats) are cosponsoring a VHF Super Conference, hosted by the Grid Pirates Contest Group (K8GP) and Directive Systems and Engineering. The conference will take place April 15-17 in Sterling, Virginia.

Early registration discounts are available. Conference *Proceedings* in printed and digital form will be available after the event. Sign up when registering. All registrations include lunch and all-day beverages.

The event will feature an array of forums and workshops, a test lab, and a conference banquet. A microwave loop Yagi workshop will be offered during the weekend at an additional fee. The workshop will explain how loop Yagis work, how to adjust them, and how to build one. Free shuttle service will be available to the Udvar-Hazy Air & Space Museum.

A second call for papers and presentations for the VHF Super Conference has been issued. The conference sponsors are seeking presentations or papers dealing with all aspects of VHF, UHF, microwave, and higher. Topics may include operating, contesting, homebrewing, software, EME, surplus, antennas, test equipment, amplifiers, and SDR. Photos are encouraged.

Steve Kostro, N2CEI, and Paul Wade, W1GHZ, are coordinating *Proceedings*. Direct submissions and questions to them via e-mail. --ARRL

SAQ Alexanderson Alternator Christmas Eve Transmission Generates a Host of Reports – The 2015 Christmas Eve transmission from SAQ, the Alexanderson alternator station at the World Heritage Grimeton site in Sweden, elicited more than 350 reports, according to a preliminary accounting, many of them from hams. SAQ transmits on 17.2 kHz. The lion's share of reports -- nearly 160 -- came from Germany. Listeners in the US filed eight reports, with just five indicating they actually heard SAQ. "The transmission appears to be our best so far," said Lars Kalland, SM6NM, who distributed the report. Kjell Dahl, OH0KXJ, reported hearing SAQ for the first time. "It is always a pleasure to listen to this CW melody on 17.2 kHz," commented Manu Aft, F5ROL. The vintage station began its holiday transmissions in 2006. Read more.

CWops Announces Award for Advancing the Art of CW: CWops has announced a new, annual award to recognize individuals, groups, or organizations that have made the greatest contribution(s) toward advancing the art or practice of radio communication by Morse code. Eligible candidates include the authors of publications related to CW; recruiters, trainers, mentors, coaches, and instructors of Morse code; designers and inventors who advance the art or practice of CW, and others contributing to the art or practice of CW. The award is not limited to Amateur

Radio operators or organizations. Anyone can submita nomination (with a copy to secretary@cwops.org). Nominations must be received by April 15, 2016. They should include the nominee's name and applicable call sign, the nominee's contact information, including e-mail and USPS addresses and a telephone number, and a detailed explanation to support the nominee's qualifications. The individual nominating should provide complete contact information too. A plaque will be presented at the Dayton Hamvention, or mailed to the recipient.

ARRL's year-long National Parks on the Air (NPOTA) amateur radio operating event will help the National Park Service to mark its 100th anniversary. In the process, hams ("activators") from across the country will activate NPS units, promote the National Park Service, and showcase Amateur Radio to the public. "Chasers" like Burke will attempt to work as many of them as possible. Logbook of The World (LoTW) is being use to record and confirm contacts among Activators and Chasers.

ARRL has added NPOTA to the "soapbox" area of the ARRL website, so people can share photos and stories of their NPOTA activations.

The deadline for the March NPOTA photo contest is January 15. The winner will get his/her photo published in the March *QST* NPOTA column and receive NPOTA swag too.

Activators will operate from more than a dozen NPOTA units during the week of January 15-21. Details are available on the NPOTA Activations calendar. Love NPOTA? Join the ARRL NPOTA Facebook Group.

History of the Morse Key - Since the first Morse telegraph systems were introduced, an enormous variety of Morse keys or telegraph keys and keyers have been constructed.From Straight keys including the Camelback Morse key, to automatic Morse keyers such as the Vibroplex, their development has seen many changes.

Even today many people enjoy sending Morse Code using these Morse keys. While some may say that they are simply a switch, this is most certainly not the case. Morse keys have been the subject of over 300 patents in the USA alone, and they have undergone a considerable amount of development. The way in which keys have developed since the very first ones used by Morse himself is a fascinating story. Some styles of key are quite familiar, whilst others have quite unusual attributes and as a result many people find collecting keys a fascinating pastime.

Watch this video about the history of the Morse key http://forums.qrz.com/index.php?threads/history-of-the-morse-key.509880/

Bart Jahnke, W9JJ, has been named as ARRL Contest Branch Manager -- One of Bart's personal goals for the contest branch is to shorten the cycle between contest end and the publishing of contest results, while upholding the quality and integrity of the scoring process.

Microchip Technology, purveyor of PIC processors, is purchasing Atmel, maker of the AVR chips central to Arduinos and variants.

"Here's an Interesting summary of amateur TV experiments in HD and even the proposed ATSC 3.0 commercial broadcast standard" - (KK6DA from Elecraft mailing list)

Ah, 807s! The quintessential vacuum tube.

THANKS FOR READING!

THE RCA ARC MONTHLY NEWSLETTER IS COMPILED AND EDITED BY JIM RINEHART, AND JIM KEETH. ALL MATERIAL CONTAINED HEREIN IS OBTAINED FROM THE SOURCES CREDITED AND EDITED FOR THIS NEWSLETTER. EMAIL TO mailto:WebMaster@w9rca.org. Check our web site at http://www.w9rca.org/